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Tail Rotor Hanger Bearing Support Shimming Procedures

WARNING

Any discrepancies that exceed established inspection limits in the applicable Technical Manuals require approval from RDECOM engineering. Contact the supporting LAR and LE to request a Maintenance Engineering Call (MEC).

NOTE

This Addendum is required for use in conjunction with OH-58-10-ASAM-##.

References:

- (a) TM 1-1520-248-23
- (b) TM 1-1520-248-23P
- (c) TM 1-1500-204-23
- (d) BHTI Service Bulletin 407-97-7
- (e) Bell Standard 120-008

Description: This Addendum introduces a procedure for shimming between the bearing supports and the bearing hangers on the tailboom. Shimming removes any gap that exists and the possibility of stress on the supports that can occur during clamp-up.

Applicable Parts:

Nomenclature	PN	NSN
Support, Structural (STA 215.048)	406-030-161-101	1560-01-363-4679
(Hanger Bearing Support #3)		
Support, Mid-Bearing (STA 248.132	3) 406-030-122-103	1560-01-180-7649
(Hanger Bearing Support #4)		
Support, Structural (STA 281.198)	406-030-164-103	1560-01-375-0817
(Hanger Bearing Support #5)		
Support, Structural (STA 314.243)	406-030-165-101	1560-01-333-7323
(Hanger Bearing Support #6)		
Bolt, Shear	NAS6604D65	5306-01-275-6803
Washer, Flat	MS25440-4	5310-00-841-2576
Washer, Recessed	140-007-20-19-2	5310-01-223-7139
Nut, Plain, Castellated	AN310-4	5310-00-167-1285
Pin, Cotter	MS24665-134	5315-00-839-5820

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Bulk Material:

Nomenclature	PN	NSN
Shim, Laminated	120-006C24E9	5365-01-232-7472
Special Tools:		

Nomenclature	PN	NSN
Gage, Thickness	FG-32	5210-00-221-1999
Plate Set Assembly	T102146-101	4920-01-236-9835

Procedures:

- 1. Perform Tail Rotor Bearing Hanger Alignment IAW TM-11520-248-23, Task 6-6-18.
- 2. Following the task step 4, with the cotter pin removed and the nut from the bolt loosened that attaches the tail rotor driveshaft bearing hanger to the bearing support.

CAUTION

Supports in which the bearing hanger does not fit freely or creates an interference fit should not be installed. Replace the support.

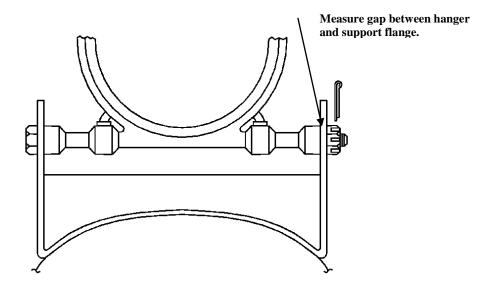


Figure 1, Bearing Hanger and Support

3. Slide the tail rotor bearing hanger on its bolt, until it is against one flange of the bearing support (Figure 1). With the use of a feeler gauge, carefully measure the free gap between the tail rotor bearing hanger and the other flange of the bearing support.

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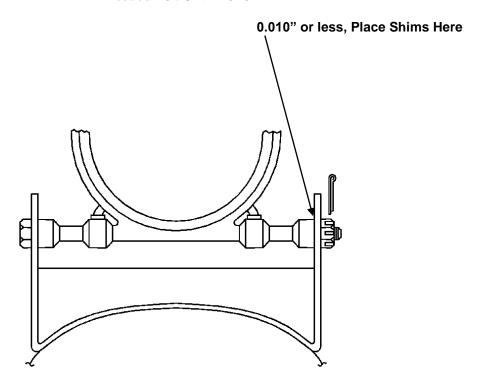


Figure 2, Shim Placement .010 or less

4. If the measured gap is 0.010 in. or less, peel the shim to the same thickness as the measured gap within 0.002 in. and put it between the bearing hanger and the bearing support on the nut side of the bearing support. Measured gap of 0.002 in. or less does not require a shim (Figure 2).

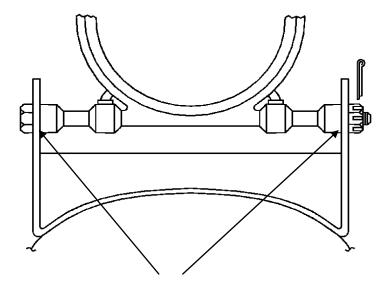


Figure 3, Shim Placement greater than 0.010" and up to 0.128" must be divided equally with in 0.002".

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5. If the measured gap is greater than 0.010 in., peel shim into two shims that have a combined thickness that is the same as the measured gap within 0.002 in. and their individual thicknesses are within 0.004 in. Install one shim between the bearing hanger and the bearing support on each side of the bearing hanger (Figure 3).

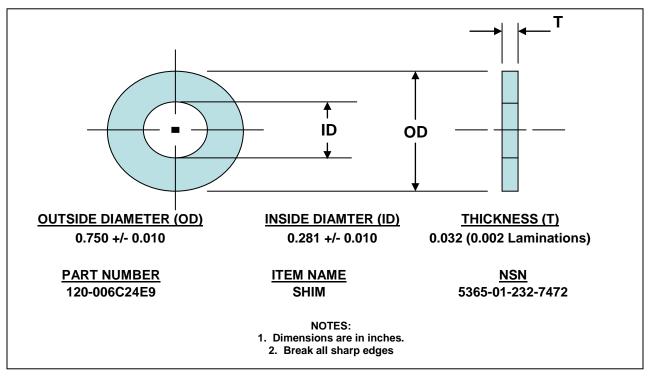


Figure 4, Laminated Shim

NOTE

Shim stock can be locally manufactured if necessary using steel "QQ-S-766" or MIL-S-5059, Composition "302", Condition "A".

NOTE

The instructions to determine the amount of shims required is the same for the four tail rotor driveshaft bearing supports. Repeat the steps 2. thru 6. for each of the four bearing supports.

6. Upon completion of shim application, continue with the steps contained in TM 1-1520-248-23, Task 6-6-18.